

# *Chem-Impex International, Inc.*

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**Manufacturing site:**

825 Dillon Drive

Wood Dale, IL 60191

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## *Certificate of Analysis*

<b>Catalogue Number</b>	33066
<b>Product</b>	<b>L-Glutamine, from non-animal origin</b>
<b>Lot Number</b>	000531-16318
	L-Gln-OH
<b>CAS Number</b>	56-85-9
<b>Molecular Formula</b>	C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O <sub>3</sub>
<b>Molecular Weight</b>	146.15

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<b>Appearance</b>	White crystalline powder
<b>Heavy Metals</b>	< 5 ppm
<b>Anion</b>	Chloride : < 0.02% Sulfate : < 0.02%
<b>Cation</b>	Iron : < 10 ppm Lead : < 5 ppm Arsenic : < 1 ppm
<b>pH</b>	4.7
<b>Yeast and Mold</b>	< 100 cfu/g
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>20</sup> = + 6.4°
<b>Loss on Drying</b>	0.0%
<b>Coliform Organisms</b>	Negative
<b>Endotoxin Test</b>	< 40 EU/g
<b>Microbial Count</b>	< 1000 cfu/g (Total count)
<b>Insoluble material</b>	Conforms
<b>Other Amino Acids</b>	< 0.5%
<b>Residue On Ignition</b>	0.04%
<b>Assay by titration</b>	100.3% (dried basis)
<b>Grade</b>	USP, EP, JP testing specifications, suitable for cell culture
<b>Storage</b>	Store at RT
<b>Additional Information</b>	State of solution: 99.4%

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**Remarks**

See material safety data sheet for additional information

For laboratory use only

**The foregoing is a copy of the Certificate of Analysis as provided by our supplier**



**Bala Kumar**  
**Quality Control Manager**